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9-66

1043227 COMPLETE SPECIFICATION

3 SHEETS *This drawing is a reproduction of the Original on a reduced scale*

Sheet 1

Fig. 1.

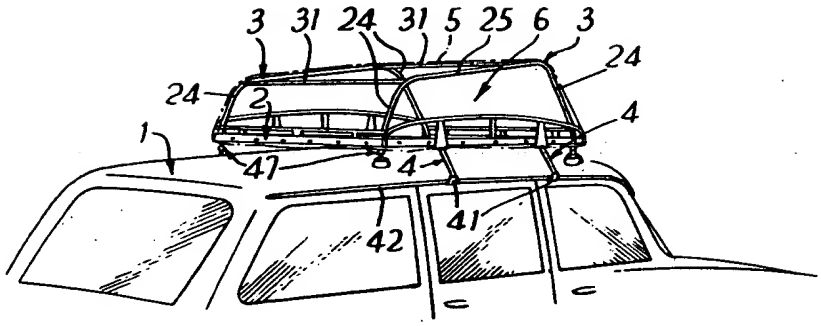
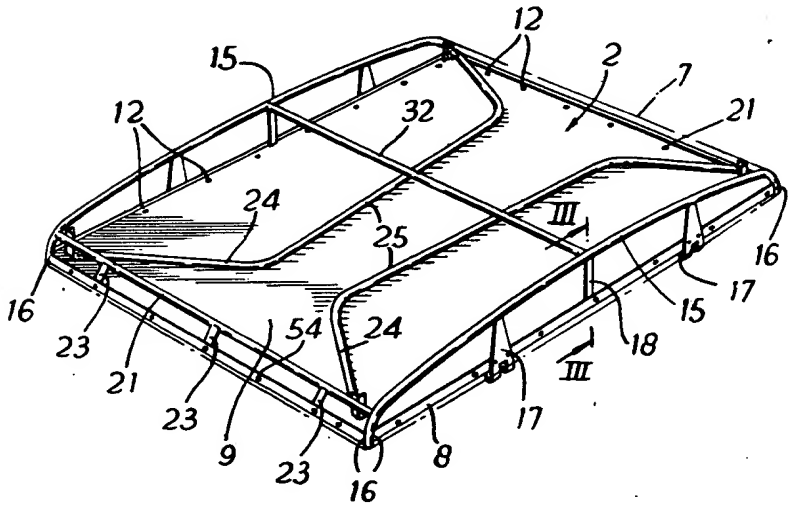


Fig. 2.



1043227 COMPLETE SPECIFICATION
3 SHEETS This drawing is a reproduction of the Original on a reduced scale
Sheets 2 & 3

Fig. 5.

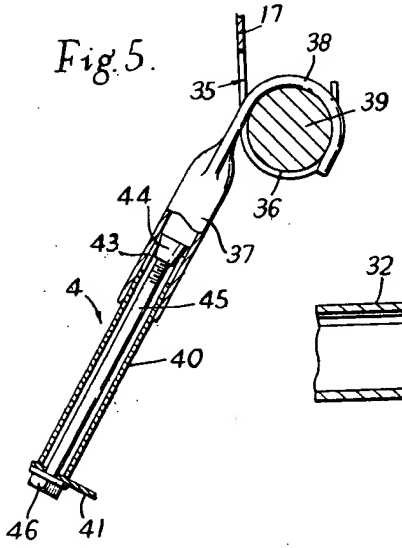


Fig. 3.

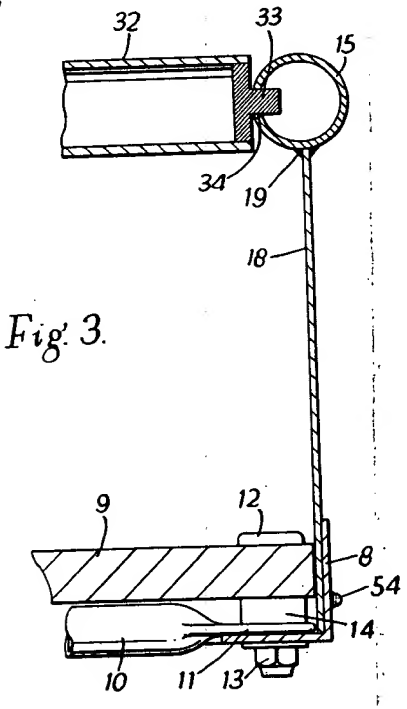
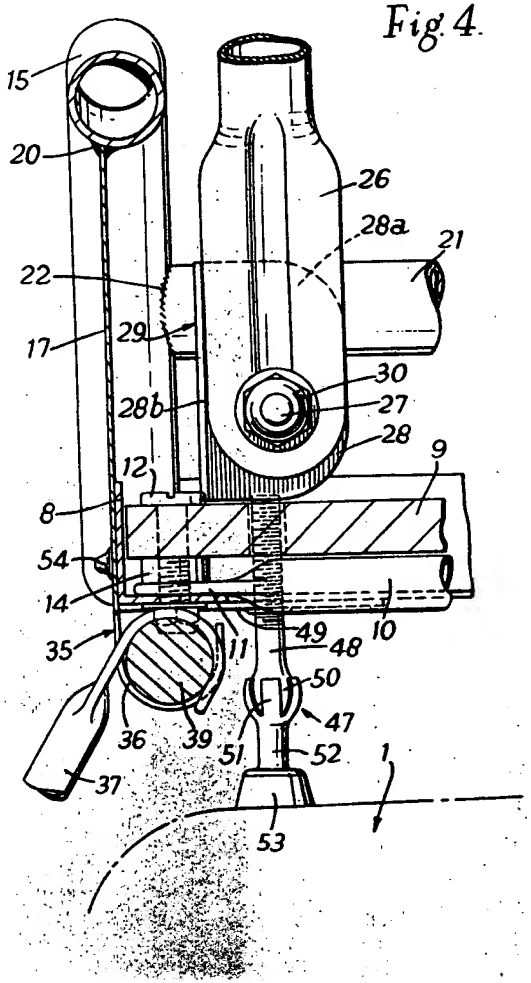


Fig. 4.



allow for insertion of the bar between the two side frames.

It will, therefore, be seen that the spigots, which project from the ends of the members, are readily disengageable from the holes in the side frames, thus allowing rapid collapsing of the skeleton structure.

The base may be of any suitable form. In one arrangement, for example, the base is constituted by a flat plate having upturned sides. In this case, the base may be made from a single suitably shaped sheet of metal, for example aluminium alloy. In the preferred arrangement, however, the base is composed of a peripheral frame of angle section supporting a flat sheet, for example of plywood, which is bolted or otherwise secured in the frame. The frame may again be of aluminium alloy, and, if desired, the base may be lined with fabric.

To further increase the rigidity and strength of the base, the latter may, for example, have a plurality of reinforcing bars or slats, for example of metal, which are secured to the base on the underside of the flat sheet.

The sides of the base may be turned over at the tops thereof so as to present the base with an attractive appearance and to remove any sharp edges which may catch and possibly tear the cover. Alternatively, particularly in the case where the sides of the base are made of a frame of angle section, a protecting strip of, for example, rubber may be secured to the upper edge of the frame.

The means for securing the base of the holder to the roof of a vehicle may be of any form such, for example, as is used in conventional luggage racks.

The base of the holder will also be provided with supporting legs, the purpose of which is to constitute a counter support for the means for attaching the base to the roof of a vehicle. Preferably, these legs are each screwed at one end thereof into a plate mounted on the base and have at the other, lower end thereof a pad adapted to contact the roof of a vehicle when the holder is mounted in position.

By making these legs and the means for securing the holder to a vehicle roof detachable from the plates on the base and the roof respectively, the holder may be sold as a compact unit to be erected by the user and adjusted to any shape of roof.

In accordance with a further optional feature of the invention, the base of the holder is provided with a number of rails which facilitate securing of luggage within the holder by means of ropes, straps, or any other securing means.

There are preferably four such rails, two straight rails at the ends of the base and two upwardly bowed rails at the sides of the base, these rails being secured to the base by means of a number of brackets.

As already mentioned, the side frames are hinged to the base, and conveniently the lower ends of the side frames are each pivoted on a vertical bracket of angle section, one vertically disposed limb or arm of which is secured to the straight rail at the relevant end of the base and the other vertically disposed limb or arm of which extends to the side of the lower end concerned of the relevant side frame adjacent the bowed rail at the corner of the base concerned, so as to form a stop to prevent outward hinging of the side frame.

The cover of the holder is advantageously made of a waterproof material such, for example, as canvas or plastic having a cloth base, and may be coloured or decorated to match the colours of the vehicle to which the holder is to be applied.

In addition to this cover which is provided for the holder when the skeleton structure is erected, there will also be provided an additional cover which is adapted to be placed over and secured to the luggage holder when the skeleton structure is collapsed, thereby to protect the holder from the weather. Moreover, there will also be provided a separate bag, advantageously of canvas, into which the transverse struts of the skeleton structure may be put when not in use. Thus, when the holder is collapsed, the transverse struts carried in the canvas bag and the cover for the holder when erected, may be placed inside the collapsed holder and completely covered by the said additional cover. The bowed rails provided on the base of the holder serve as supports for this additional cover.

The main and additional covers of the holder may also be provided internally with layers of sponge or like material at the corners thereof, the function of these being to protect the cover from wearing unduly at these points.

The means for securing the main cover and the additional cover to the base may be of any appropriate form. For example, and this is preferred, the sides of the base may have a series of regularly spaced outwardly projecting pins which are adapted to be engaged with suitable press clips attached to the side walls of the cover. These clips may be of any well known form capable of being quickly released and clipped on to the projecting pins.

In an alternative arrangement, however, the lower edges of the side walls of each cover may be provided with a series of loops through which a cord or the like may be threaded, this cord being secured to a series of hooks or similar projections on the base of the holder and then tightened around the base and tied.

1,043,227

PATENT SPECIFICATION 1,043,227

DRAWINGS ATTACHED.

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Index at Acceptance:—B7 J64.

Int. Cl.:—B 60 r.

COMPLETE SPECIFICATION.

Vehicle Luggage Holder.

I, FREDERICK PARKINS, a British Subject, of 42 Fairfield Crescent, Glenfield, Leicester, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement: —

The subject of this invention is a luggage holder which is adapted to be mounted on the roof of a vehicle such as a car, the term luggage used in the specification being intended to include trunks, cases, bags and the like.

In accordance with the present invention, there is provided a luggage holder which is adapted to be mounted upon the roof of a vehicle and comprises a base and a collapsible skeleton structure upon the base, this structure comprising two side frames which are hinged to the base so as to be movable between a position in which they lie flat or substantially flat on the base, and a position in which they are upright or substantially upright, and one or more transverse members which are adapted to connect the side frames in the latter position, the skeleton structure being adapted, when rected, to support a cover thereby to define, above the base, an enclosed space for luggage.

The luggage holder preferably also comprises a cover which is adapted to enclose the erected skeleton structure on all the sides and the top thereof and to be removably attached on all sides to the base of the holder, so as completely to enfold the same.

In a preferred embodiment of the invention, the luggage holder has a substantially rectangular base and the lower ends of the side frames are hinged to the base at the respective corners thereof. The side frames are preferably of arched form.

[*Price* 4*s.* 6*d.*]

Conveniently each side frame is formed from a single length of suitably bent tube. Alternatively, at least one of the two side frames may comprise two upwardly extending members and a separate connecting member which is removably attached to the said members. This allows for insertion of the luggage to be carried by the holder between the upwardly extending members of the or each side frame and may be found necessary in the case of a small or low luggage holder constructed in accordance with the present invention.

It will, of course, be appreciated that, when the holder is mounted in position on a vehicle, the side frames will be disposed at the side of the vehicle with the transverse members extending transversely thereof, the luggage being normally inserted into the holder at the side thereof.

The luggage holder according to the invention may be of any desired shape depending on the kind of vehicle on which it is intended to be used, but, in any event, is so shaped and contoured that there are no broken lines or projecting corners which would be likely to cause creasing, tearing or undue wear of the cover.

Moreover, the holder will advantageously be stream-lined so that it will offer the minimum wind resistance during the motion of the vehicle, the front end of the holder preferably being higher than the rear end.

The or each transverse member adapted to connect the side frames is preferably in the form of a bar and is provided at each end thereof with an axially projecting spigot adapted to be engaged in a complementary hole formed in the relevant side frame, one at least of these spigots being resiliently urged into its projected position and being capable of being retracted into the bar to

In order that the invention may be more clearly understood and readily carried into practical effect, a specific constructional example thereof will now be described with reference to the accompanying drawings, in which:—

Figure 1 shows, in perspective, the luggage holder of this example mounted on the roof of a vehicle with the skeleton structure erected,

Figure 2 is a similar perspective view of the luggage holder with the skeleton structure collapsed,

Figure 3 is a cross section taken on the line III—III of Figure 2.

Figure 4 is a sectional view showing one corner of the holder, and

Figure 5 shows, partly in section, one of the means for securing the holder to the roof of the vehicle.

As will be seen, the luggage holder comprises a base 2, a collapsible skeleton structure generally designated 3 supported on this base, and means 4 for securing the holder to the roof of a car 1.

In Figure 1 the skeleton structure 3 is shown erected and enclosed on the sides and top thereof by a cover 5 (shown in chain dotted lines), thereby defining an enclosed space 6 for luggage. In Figure 2 of the drawings the skeleton structure 3 is shown collapsed and enclosed by a further cover 7, this cover also being shown in chain dotted lines.

Referring now in more detail to the drawings, the base 2 of the holder comprises a rectangular peripheral frame 8 of angle steel upon which is supported a flat plywood sheet 9. To increase the rigidity and strength of the sheet 9, there is provided, at the underside of this sheet, a plurality of reinforcing bars or slats 10 which run transversely of the base 2. As shown in Figures 3 and 4, these bars or slats 10 are constituted by metal tubes of circular cross section, the ends 11 of which are flattened and interposed between the underside of the sheet 9 and the frame 8. Screw threaded bolts 12 pass through the sheet 9, the flattened ends 11 of the bars or slats 10, and the frame 8, are retained by complementary nuts 13 and secure these parts together. Rubber bushes 14, surrounding the bolts 12, are interposed between the sheet 9 and the flattened ends 11 of the tubes.

Extending above each of the longitudinal sides of the base 2 is an upwardly bowed rail 15, the downwardly depending ends of which are welded at 16 to the relevant corners of the frame 8. These rails 15 are each supported along their length by brackets 17 and 18. Thus, bracket 18 is welded at its upper end at 19 to the underside of the rail 15 and its lower end is interposed between the plywood sheet 9 and the upstanding side of the frame 8 (see Figure 3). The upper ends of the brackets 17 are also welded to the underside of the rails 15 at 20 (see Figure 4) and the brackets are secured to the upstanding sides of the frame 8 by means of screws.

Mounted above each end of the base 2 is a straight rail 21 of metal tubing, these rails being welded at their ends to the relevant downstanding end portions of the rails 15 at 22. These rails 21 are supported along their lengths by brackets 23 welded to the rails and to the upstanding side wall of the end member of the frame 8.

The skeleton structure of the holder comprises two arched side frames 24, 25 of metal tubing.

Each of the upwardly-extending parts 24 of the side frames is hinged at the relevant corner of the base 2. For this purpose, the lower end 26 of each part 24 is flattened (see Figure 4) and has formed therein a diametral hole through which passes a horizontal bolt 27. This bolt 27 also passes through a hole formed in a bracket 28 of angle section, one vertically disposed limb or arm 28*a* of which is welded to the relevant end rail 21 at 29. Each bolt 27 is secured by a nut 30. The other vertically disposed limb or arm 28*b* of each bracket 28 extends to the side of the flattened end 26 of the part 24 adjacent the bowed rail 15 so as to form a stop to prevent outward hinging of the side frame concerned.

To maintain the arched side frames 24, 25 upright and hence the skeleton frame 3 erected, two transverse members 31 are placed between the frames (see Figure 1). Each of these members 31 which consist of a metal bar, is provided at each end thereof with an axially projecting spigot (not shown) which is adapted to be engaged in a complementary hole formed in the relevant side frame 24, 25. To facilitate introduction of these members 31 between the frames 24, 25 without forcing apart of the latter, one of the spigots of each member 31 is spring mounted in the member concerned so as to be capable of being retracted into the member during such introduction and return to its projected position under the action of the spring when the member is in place, thus entering the hole in the side frame concerned.

As shown in Figure 2, the two side frames 24, 25 can be hinged about their respective bolts 27 so as to be moved into a substantially horizontal position lying flat on the base 2. With the skeleton frame thus collapsed, the two transverse members 31 can be stored, preferably in a canvas bag, in the holder which is then covered by the aforementioned cover 7. To provide a support for this cover 7, a bar 32 is placed across the centre of the base 2 (see Figure

2). This bar 32 is provided at one end thereof with a spigot 33 (see Figure 3) which is engageable in one of two holes 34 formed in the bowed rails 15, and at the other end thereof (not shown) with a spring mounted spigot which can be retracted into the bar 32 to allow for insertion of the bar between the two bowed rails 15.

Each of the brackets 17 has a downwardly extending portion 35 which is turned upwards and inwards of the base in the form of a U and has a slot 36 formed therein. These U-shaped portions of the brackets 17 serve to support the means 4 for securing the holder to the roof of the car 1, of which, it will be seen, there are four, one adjacent each corner of the base.

As shown in Figure 5, each of these means 4 includes a hollow metal tube 37, the end portion 38 of which is flattened and turned over in the form of a U. This U shaped end portion 38 is inserted into the slot 36 in the U-shaped portion 35 of the bracket 17 and a metal pin 39 is inserted between the end portions 35 and 38 to connect them together.

Each hollow tube 37 has telescopically mounted therein a second tube 40 which carries at its outer end clamping means 41 for attachment to the gutter 42 (Figure 1) of the car 1. The end of the second tube 40 disposed inside the tube 37 has formed therein a number of longitudinal slits 43. Located in this end of the tube 40 is a tapered nut 44, the tapered end of which extends partially into the end of the tube. This nut 44 has a screw 45 therein, the head 46 of which abuts against the outer end of the tube 40 and serves to hold the clamping means 41. Thus, when the tubes 37, 40 have been adjusted relatively to one another to a length suitable for the car on which the holder is to be mounted, the screw 45 is tightened, thereby drawing the tapered nut 44 into the inner end of the tube 40, opening the slits 43 and locking the tube 40 against the inner surface of the tube 37.

The base 2 of the holder is provided with four supporting legs 47 one at each corner of the base. As shown in Figure 4, each of these legs 47 comprises a screwed portion 48 which is screwed into a plate 49 which is of triangular shape and secured to the relevant corner of the frame 8 of the base. This screwed portion 48 extends through a hole in the plywood sheet 9 and has a spherical end 50 located in a spherical seating 51 formed on a leg 52 which carries at its lower end a rubber pad 53 arranged to contact the roof of the car 1. The supporting legs 47 serve as counter supports for the means 4 for securing the holder to the roof of the car, the spherical joint 50, 51 allowing orientation of the leg 52 to seat the pad 53 on the roof. To allow for securing of the cover 5 or the cover 7 on the holder, the frame 8 of the base is provided therearound with a plurality of outwardly projecting pins 54 which are adapted to engaged with suitable press clips (not shown) attached to the covers 5 and 7.

WHAT I CLAIM IS:—

1. A luggage holder which is adapted to be mounted upon the roof of a vehicle and comprises a base and a collapsible skeleton structure upon the base, this structure comprising two side frames which are hinged to the base so as to be movable between a position in which they lie flat or substantially flat on the base, and a position in which they are upright or substantially upright, and one or more transverse members which are adapted to connect the side frames in the latter position, the skeleton structure being adapted, when erected, to support a cover thereby to define, above the base, an enclosed space for luggage.

2. A luggage holder according to Claim 1, further comprising a cover which is adapted to enclose the erected skeleton structure on all the sides and the top thereof and to be removably attached on all sides to the base of the holder.

3. A luggage holder according to Claim 1 or 2, wherein the base is substantially rectangular in shape, and the lower ends of the side frames are hinged to the base at the respective corners thereof.

4. A luggage holder according to Claim 1, 2 or 3, wherein the side frames are each of arched form, for example being formed from a single length of suitably bent tube.

5. A luggage holder according to Claim 1, 2, 3 or 4, wherein the or each transverse member is in the form of a bar and is provided at each end thereof with an axially projecting spigot adapted to be engaged in a complementary hole formed in the relevant side frame, one at least of these spigots being resiliently urged into its projecting position and being capable of being retracted into the bar to allow for insertion of the bar between the two side frames.

6. A luggage holder according to any of the preceding claims, wherein the base is composed of a peripheral frame of angle section supporting a flat sheet, for example of plywood, which is bolted or otherwise secured in the frame.

7. A luggage holder according to Claim 6, wherein the base is provided with a plurality of reinforcing bars or slats, for example of metal, which are secured to the base on the underside of the flat sheet.

8. A luggage holder according to any of the preceding Claims, wherein the base is provided with a plurality of downwardly extending supporting legs, these legs each being screwed at the upper end thereof into a plate mounted on the base and having at

the lower end thereof a pad adapted to contact the roof of a vehicle when the holder is mounted in position, these legs serving as counter supports for the means for attaching the holder to the roof of a vehicle.

9. A luggage holder according to any of the preceding Claims, wherein the base is provided with a number of rails which facilitate securing of luggage within the holder by means of ropes, straps or any other securing means.

10. A luggage holder according to Claim 9, wherein there are four such rails, two straight rails at the ends of the base and two upwardly bowed rails at the sides of the base, these rails being secured to the base by means of a number of brackets.

11. A luggage holder according to Claim 10, wherein the lower ends of the side frames are each pivoted on a vertical bracket of angle section, one vertically disposed limb or arm of which is secured to the straight rail at the relevant end of the base and the other vertically disposed limb or arm of which extends to the side of the lower end concerned of the relevant side frame adjacent the bowed rail at the corner of the base concerned, so as to form a stop to prevent outward hinging of the side frame.

12. A luggage holder according to any of the preceding Claims, further comprising a cover adapted to cover the holder when the skeleton structure is collapsed.

13. A luggage holder substantially as herein described with reference to the accompanying drawings.

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